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# ***Blower Troubleshooting***

**CrossFire 4.4**

**Section 8-3**

No	Problem / Possible Cause	Solution
1	<b>There is no vacuum or a loss of vacuum.</b>	
1.1	The <i>stainless steel filter</i> is clogged.	Clean or replace the filter.
1.2	The <i>filter bag</i> is clogged.	Clean or replace the filter bag.
1.3	The <i>vacuum tank dump valve</i> is "open" or defective.	If water drips from the valve when the machine is not running, the valve will cause a vacuum loss when the machine is running. Replace it if it is defective.
1.4	The <i>vacuum hose</i> is plugged.	Remove the obstruction by reversing the vacuum hose.
1.5	There is a restriction in the <i>cleaning tool</i> .	Remove the obstruction.
1.6	The <i>vacuum tank seal</i> is defective.	Replace the seal.
1.7	The <i>hose</i> from the blower to the recovery tank is kinked or has collapsed inside.	Replace or reshape the hose. <b>NOTE:</b> A special reinforced hose is required for replacement.
1.8	There is a hole in the <i>recovery tank</i> .	Inspect the tank for leaks using smoke and weld the tank if it is required.
1.9	There is a hole in the <i>vacuum hose</i> .	Repair or replace the hose.
1.10	The <i>vacuum release</i> is loose.	Readjust the vacuum release.
1.11	The <i>engine speed</i> is too low.	Adjust the speed.

<b>No</b>	<b>Problem / Possible Cause</b>	<b>Solution</b>
1.12	The <i>vacuum blower's</i> end plates or lobes are worn.	Replace the worn components. <b>NOTE:</b> This must be accomplished by a qualified technician.
1.13	There are <i>vacuum leaks</i> around the top collector box.	A vacuum leak can usually be detected by spraying a mist of WD40 or blowing smoke towards the leak. The mist or smoke will be sucked into the leak. When you see the leak, repair it.

<b>No</b>	<b>Problem / Possible Cause</b>	<b>Solution</b>
<b>2</b>	<b>The blower is noisy.</b>	
2.1	There is an <i>exhaust</i> leak between the blower and the silencer.	Inspect the fittings to determine where the air leak is. Repair as necessary.
2.2	The <i>blower</i> is out of oil or the gears may be bad. <b>NOTE:</b> Permanent damage may result from a lack of lubrication.	Add oil. If the noise continues, replace the gears or blower. <b>NOTE:</b> Replacement of the gears must be accomplished by a qualified technician.
2.3	The <i>silencer</i> is bad.	Inspect it for an external hole. Repair or replace the silencer.
2.4	The <i>lobes</i> are hitting.	Replace the blower.
2.5	The <i>engine</i> is running at the wrong speed. This is noticeable because the blower noise increases with speed.	Adjust the engine to run at the proper speed.
2.6	The <i>bearings</i> are worn.	Remove and replace the bearings as required. <b>NOTE:</b> This process must be accomplished by a qualified technician.

No	Problem / Possible Cause	Solution
<b>3</b>	<b>The blower will not turn.</b>	
3.1	The <i>lobes</i> are locked up because of rust, burnt chemical foam, or a sugar-like substance has been vacuumed up from the carpet.	a. Most <i>burnt foam</i> and <i>rust</i> can be removed by soaking the lobes with liquid wrench. After soaking the lobes, with the machine running, pour a half gallon of hot water into the top of the blower. Then spray WD40 or Pennz Lube into the top of the blower to displace the water. b. Any <i>sugar-like substances</i> can be removed by soaking the lobes with hot water.
3.2	There is debris in the <i>blower</i> .	Remove the debris. A stainless steel filter is provided at the vacuum inlet in the vacuum tank to prevent this problem.
3.3	The blower has broken <i>gears</i> or shattered <i>lobes</i> .	Rebuild or replace the blower. <b>NOTE:</b> Rebuilding the blower must be accomplished by a qualified technician.

<b>No</b>	<b>Problem / Possible Cause</b>	<b>Solution</b>
4	The shaft turns, but the lobes do not.	
4.1	The <i>shaft</i> is broken inside the blower.	Replace the blower.